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Randomized Comparison Of Final Kissing Balloon Dilatation Versus No Final Kissing Balloon Dilatation In Patients With Coronary Bifurcation Lesions Treated With Main Vessel Stenting. Three Year Clinical Outcome In The Nordic-Baltic Bifurcation Study III

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Background: Using the recommended one-stent strategy for bifurcation treatment, a strategy of routine final kissing balloon dilatation (FKBD) have resulted in longer and more complex procedures and mixed midterm clinical results as compared to a strategy of provisional FKBD. Delayed strut coverage, flow limiting neointimal growth on stent struts jailing the side branch ostium, but also stent distortion after FKBD, might affect long term clinical results. Here we present the 3-year clinical follow-up in the Nordic-Baltic Bifurcation Study III (NCT00914199) on routine vs. provisional FKBD.

Methods: We randomized 477 patients with a bifurcation lesion to FKBD (n=238) or no-FKBD (n=239) after main vessel stenting. The 6-month primary end-point was a composite of major adverse cardiac events (MACE); cardiac death, non-procedure related infarction myocardial infarction, target lesion revascularization or stent thrombosis.

Results: No patients were lost to follow-up. The 36-month MACE rates were 9.7% vs. 10.0% (p=0.89) in the FKBD and no-FKBD groups, respectively. Total death was 5.9% vs. 2.1% (p=0.03), cardiac death was 2.1% vs. 0.4% (p=0.10), target lesion revascularization was 6.3% vs. 8.3% (p=0.39), and definite stent thrombosis was found in 0.8% vs. 1.3% (p=0.66) in the FKBD and no-FKBD groups, respectively. In the subgroup of true bifurcation lesions 36-month MACE rates were 9.1% in the FKBD group vs. 12.7% (p=0.37) in the no-FKBD group.

Conclusions: A strategy of routine FKBD compared to provisional FKBD in main vessel-only stenting did not improve 36-month clinical outcome after stenting of the main vessel in coronary bifurcation lesions.

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The Impact of Second Generation Drug-eluting Stent on Mid-term Clinical Outcome in Patients with Unprotected Left Main, Milan and New-Tokyo Registry

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Background: Despite many studies concerning percutaneous coronary intervention (PCI) in patients with unprotected left main disease (ULM), there are a little data available regarding clinical outcomes between following 1st and 2nd generation drug eluting stent (DES) implantation.

Methods: Between January 2005 and December 2011, 1029 consecutive patients who were treated for ULM lesion with DES (1st DES; 765 patients and 2nd DES; 264 patients) were enrolled in this study. The study end point was major adverse cardiac events (MACE) defined as a composite of cardiac death, nonfatal myocardial infarction (MI) and target lesion revascularization (TLR). Furthermore, TLR for main

branch (TLR-MB) including ULM itself and proximal Left anterior descending artery and TLR for side branch (TLR-SB) including at ostial left circumflex artery alone were evaluated.

Results: Baseline clinical and angiographic characteristics were similar between the two groups. At 1-year, MACE were not different between the 2 groups (16.8±1.4% in the 1st DES vs. 12.2±2.0% in the 2nd DES, HR, 0.924; 95%CI, 0.686–1.244, p=0.601). The occurrence of TLR-MB was similar (6.0%±0.9 vs. 4.7%±1.3%, respectively, HR, 0.785; 95%CI 0.446–1.381, p=0.401). However, 2nd DES were associated with a lower occurrence of TLR-SB as compared to 1st DES (10.4±1.1% versus 6.3±1.5%, respectively; adjusted HR 0.601; 95% CI, 0.411–1.034, p=0.069).

Conclusions: This study suggests that there were not statistically significant improvements between 1st or 2nd DES, concerning mortality and TLR-MB in patients undergoing PCI for ULM disease. However, usage of 2nd DES may contribute to reduce of TLR-SB.

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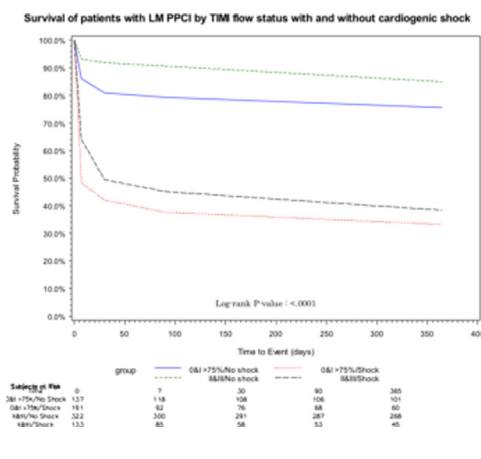
Emergency Percutaneous Coronary Intervention For Unprotected Left Main Coronary Artery Occlusion

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Background: Limited data exists about the incidence, management and outcomes following presentation with emergency left mainstem coronary artery occlusion (LMSO).

Methods: We searched the national British Cardiovascular Intervention Society database of all Primary PCI cases in the UK from January 2007 to December 2011. Patients' vital status was obtained through linkage with the national death register.

Results: During the observation period, 1139 patients presenting with ST elevation underwent PPCI to unprotected LMS (1.5% of PPCIs). Information on TIMI flow and severity of stenosis was available in 785 (mean age 69 years). 328/785 patients presented with LMSO (TIMI flow 0/1 and stenosis >75%) and were more likely to be male (75% vs 67%, p=0.02) and less likely to have a history of MI (16% vs 22%, p=0.03). LMSO presentation was associated with a doubling in risk of peri-procedural cardiogenic shock (58% vs 29%, p<0.001) and a larger proportion of patients required inotropic or mechanical circulatory support (p<0.001). 40% of patients with LMSO died during the hospital admission compared with 19% of those who did not present with occlusion (p<0.001). This difference in outcomes was only partly explained by the higher shock rate (see Figure). There was no evidence to suggest that death rates continued to diverge in those with or without LMSO beyond 30 days of follow-up (43% vs 21% and 55% vs 32% for 30-day and 1-year mortality, respectively).



Conclusions: In this largest cohort of patients presenting with LMSO and undergoing PPCI, acute outcomes are predictably poor but long-term outcomes for survivors are encouraging.

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First-in-Man Study of Dedicated Bifurcation Sirolimus-Eluting Stent BioSS LIM

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Background: The aim of this prospective, international, first-in-man study is to assess effectiveness and safety of dedicated bifurcation sirolimus-eluting stent BioSS LIM (Balton, Poland) in patients with stable coronary artery disease (CAD) and NSTE-ACS.

Methods: Between October 2011 and October 2012 patients with CAD or NSTE-ACS who signed informed consent were included into the study. The enrollment was